

Date:	7/31/95	Job No.:	94039 T1
Attention:	Joseph J. Nowak		
Re:	Hexcel Corporation		
	Lodi Borough, Bergen County, NJ		
	ISRA Case No. 86009		

401 East State Street
Trenton, NJ 08625

VIA: ☒ Courier /Hand Delivered ☐ Overnight Express
☐ First Class Mail ☐

[illegible]

Received at NJDEP by:

Printed Name

Signature

Date _____

NUJEP
INDUSTRIAL SITE
EVALUATION ELEMENT
TRENTON, N.J. CN028 08623
AUG 1 1981

COPY TO: A. William Nosil
Lisa M. Bromberg
James Higdon

SIGNED:

Marjorie A. Piette

If enclosures are not as noted, kindly notify us at once.

SDMS Document



88281

July 31, 1995

Joseph J. Nowak
New Jersey Department of Environmental Protection
Bureau of Environmental Evaluation and Cleanup Responsibility Assessment
401 East State Street
Trenton, NJ 08625

SUBJ: Hexcel Corporation
Lodi Borough, Bergen County, New Jersey
ISRA Case No. 86009
GEO File No. 94039

Dear Mr. Nowak:

On behalf of Hexcel Corporation (Hexcel), the following is the progress report of activities carried out during April, May and June of 1995. This quarterly report is prepared in accordance with the Industrial Site Recovery Act (ISRA) requirements for the former Hexcel facility in Lodi, New Jersey. Also included in this report are responses to the New Jersey Department of Environmental Protection (NJDEP) letter of June 12, 1995. Appendix A provides an item-by-item listing of Hexcel's responses, cross-referenced to the text of this progress report.

The following topics are discussed in this progress report:

1. Ground Water/DNAPL/LNAPL Monitoring
2. DNAPL Recovery
3. LNAPL Recovery
4. Treatment of Basement Seepage Water
5. Sewer Connection
6. Off-Site Investigation
7. Waste Disposal Documentation
8. Schedule and Cost Estimates
9. Update on Effects of Explosion at Neighboring Property

1. Ground Water/DNAPL/LNAPL Monitoring

In this section, we report the results of our quarterly monitoring done in April 1995, and our monthly monitoring performed in May and June 1995. We also present several modifications to the approved LNAPL and DNAPL monitoring plans.

On April 10, 1995, Hexcel conducted quarterly ground water elevation, DNAPL and LNAPL monitoring in accordance with the monitoring plans. Results are tabulated in Table 1 and illustrated in Figures 1 and 2, which depict shallow and deep ground water elevation contours, respectively. Contour Map Reporting forms are enclosed for each of the contour maps. Table 2 contains a summary of well construction data. Figures 1 and 2, Tables 1 and 2, and the reporting forms are located in Appendix B.

On May 10 and June 6, 1995, Hexcel conducted monthly DNAPL and LNAPL monitoring in accordance with the monitoring plans. Results are provided in Tables 3 and 4, located in Appendix C.

Criteria for modifying the DNAPL and LNAPL plans were presented in our October 24, 1994 letter and subsequently approved by the NJDEP in their June 12, 1995 letter. Accordingly, this quarter, we have made the following modifications to the DNAPL and LNAPL monitoring plans:

- P-2 and MW-23: Shifted from quarterly to monthly LNAPL monitoring after trace LNAPL was detected in May 1995.
- RW7-5: Shifted from quarterly to monthly DNAPL monitoring after trace DNAPL was detected in April 1995.
- MW-6, CW-12 and CW-16: All three wells are already included in the DNAPL monitoring plan and were added to the LNAPL monitoring plan after trace LNAPL was detected in June 1995.

No other modifications have been made to either the DNAPL or LNAPL monitoring plans.

Review of VO data versus DNAPL solubility

Hexcel has reviewed the historical volatile organic compound results for all the monitoring (MW-series), control (CW-series) and recovery (RW-series) wells in response to the NJDEP's request. In its June 12, 1995 letter, the NJDEP requested that Hexcel include wells containing any DNAPL compound in excess of 1% of its solubility in the

monthly monitoring program for a minimum of three months. If no DNAPL was detected during the first three months, the monitoring frequency would be reduced to quarterly.

DNAPL compounds and their respective solubilities are listed in Table 5 in Appendix D. Table 6 lists the wells which have exceeded the 1% solubility criteria for one or more DNAPL compounds, along with the respective compounds and their concentrations. For the wells which have been sampled more than once, the most recent analytical results have been used for comparison with the solubility criteria.

The wells exceeding the 1% solubility criteria for DNAPL monitoring are summarized in Table 7. These wells can be subdivided into the following categories:

1. Wells are already part of the monthly monitoring program (MW-6, 8, 26 and RW6-1); therefore, no changes are necessary to comply with the NJDEP's request.
2. Wells are part of the quarterly monitoring program and no DNAPL has been detected for the past 3 quarters (MW-4, 10, 17, 18, 22, 27, CW-14 and RW6-2); therefore, Hexcel need not alter the frequency of the monitoring from quarterly to monthly.
3. Wells are not part of the monthly or quarterly monitoring program (CW-3, 5, 9, 11, 15, 18, 21 and RW6-3). The status of these eight wells with regard to the NJDEP's request is discussed in the following paragraphs.

Of the eight wells listed in Category 3, seven contain ground water recovery equipment (CW-3, 5, 9, 11, 15, 18 and 21). The recovery equipment was temporarily removed from these wells in July 1993 for monitoring purposes and no DNAPL was detected in any of the wells at that time. The results are included in the well sampling logs contained in Appendix D. Given that no DNAPL was detected during the July 1993 monitoring event and that it is impractical to frequently dismantle the recovery system, Hexcel proposes to continue to exclude the seven "CW" series wells from both the monthly and quarterly monitoring programs.

Well RW6-3, which is the only other well listed in Category 3, will be included in the monthly monitoring program. If no DNAPL is detected during the first three months, the monitoring frequency will be reduced to quarterly.

2. DNAPL Recovery

A temporary DNAPL recovery program, consisting of manually recovering product from affected wells on a weekly basis, was initiated on October 20, 1994. After one month, the program's frequency was reduced to twice a month due to a reduction in the quantity of product recovered. Product recovery continued at the rate of at least twice

a month through the week of June 19, 1995. Results are summarized in Table 8, located in Appendix E.

In accordance with the NJDEP's June 12, 1995 letter, weekly product recovery was resumed the week of June 26, 1995. In the near future, wells containing DNAPL, even at trace quantities, are to be fitted with tubing to allow for product recovery using a peristaltic pump. Well MW-6 was fitted with tubing for pumped DNAPL recovery on March 2, 1995 and we have found this to be a more efficient and effective method of product recovery than using a bailer.

3. LNAPL Recovery

During the second quarter of 1995, three different methods were used to recover LNAPL from affected wells. The first consisted of a one piece hydrophobic filter/collector unit which was suspended in the well and intercepted the water surface; LNAPL passes through the filter and accumulates, by gravity, in the collector. The filter/collector unit is the "passive recovery device" referenced in previous progress reports. The second method of recovery was a sorbent pad which floats in the well. The third was manual recovery using a bailer.

The approved LNAPL recovery plan for CW-7 has been modified to include sorbent pads and bailed recovery. The approved plan specified the use of the filter/collector device; this has been replaced with a sorbent pad. In addition, Hexcel bails LNAPL from CW-7 on a weekly basis. Approximately 0.4 gallons of product were recovered from CW-7 during the second quarter of 1995 (see Table 8 located in Appendix E for details).

An unanticipated quantity of LNAPL was detected in CW-7 on June 28, 1995. Approximately 0.4 feet of product was measured; 1.5 quarts of LNAPL were bailed from the well. The filter/collector device positioned in CW-7 failed to collect all of the product; therefore, it was replaced with a sorbent pad on June 30. Hexcel will replace the sorbent pads as needed, bail product on a weekly basis, and assess whether additional modifications in the recovery program are necessary.

In accordance with the NJDEP's request to recover product at all wells containing LNAPL, Hexcel placed a sorbent pad in MW-6 on June 30. It is in the process of purchasing the necessary equipment to begin passive product recovery using sorbent pads at the other wells where trace quantities of LNAPL are present; that is, wells P-2, MW-23, RW1-1, CW-12 and CW-16.

4. Treatment of Basement Seepage Water

Basement seepage water continues to be treated on-site and is being disposed of off-site at the DuPont Chambers Works facility, Deepwater, New Jersey. Disposal documentation has been attached as Appendix F.

5. Sewer Connection

Progress on the sewer installation was delayed by the Napp explosion and its aftermath. Specifically, bid document preparation was delayed because a soil sampling event had to be postponed; the soil sampling data were necessary to complete the bid documents. Bid documents are being finalized and the contractor selection process has begun. ~~We currently estimate that construction will begin mid-August and we will be ready to discharge to the sewer line in mid-September. Note that the Stream Encroachment Permit has been obtained; it was issued by the NJDEP on April 6, 1995.~~

6. Off-Site Investigation

Hexcel is complying with the NJDEP's request to obtain ground water sampling data across the Saddle River from MW-8. Regarding the NJDEP's position that "MW-X" is approximately 200 feet too far south of MW-8, it appears as though there may be additional wells across the river, perhaps closer to MW-8. In a June 1, 1995 telephone conversation with Mr. Charles Pinto, owner of the property across the river from MW-8, Mr. Pinto indicated that the U.S. Army Corps of Engineers (Army Corps) may have installed several wells on his property as part of the lower Saddle River Flood Control Project. During the same telephone conversation, ~~Mr. Pinto indicated that he would be willing to give Hexcel permission to perform a Geoprobe investigation on his property, if necessary.~~

We have requested well construction data, chemical analysis data, and permission to sample monitoring wells installed by the Army Corps on Mr. Pinto's property. A copy of our June 30, 1995 letter to Mr. Reginald Perry of the Army Corps has been included as Appendix G. Upon receipt of the requested information, GEO will evaluate whether the existing data, ground water sampling via the Army Corps' wells, or a Geoprobe sampler is necessary to comply with the NJDEP's request.

Hexcel will explore the possibility of obtaining additional monitoring well data from the Napp property. We presume that monitoring wells will be required for Napp's cleanup program and will seek access to the data from those wells.

7. Waste Disposal Documentation

Enclosed as Appendix F are manifests and a summary table for waste disposal during April, May and June 1995.

8. Schedule and Cost Estimates

Table 9 located in Appendix H presents an updated estimate of the schedule of remaining remedial activities. There has been no change to date in the estimate of cleanup costs.

The explosion at the neighboring Napp Technology facility in April and subsequent flooding of the Building 1 basement led to an overall setback in our schedule of approximately two months. ~~In addition, the soil investigation and sediment sampling are being held in abeyance pending review of the results of the Napp investigation.~~ These adjustments are reflected in the enclosed revised schedule. Note that the enclosed estimated schedule also includes lines for proposal submittal and NJDEP review of the design of the permanent recovery system, as requested in the NJDEP letter of June 12, 1995.

9. Update on Effects of Explosion at Neighboring Property

The following is a chronological summary of events regarding the explosion/fire at the neighboring Napp facility, including a description of the effects of these events on Hexcel's treatment system. The immediate effects were a shutdown of the ground water treatment system and a delay of the soil sampling for the sewer line.

4/21/95 Napp explosion and fire. The soil sampling along the proposed sewer line that was originally scheduled for this date was postponed.

4/21-4/24 ~~Basement of Building 1 and adjacent steam tunnel are flooded with a minimum of 100,000 gallons of water.~~ As a result of the flooding, the ground water recovery system was incapacitated.

Holding tank H-1, part of Hexcel's treatment system and located in the basement, is empty. The flooding causes the empty tank to float; piping connected to the tank is damaged. In addition, a non-submersible pump is submerged and damaged.

4/26 Napp's contractor begins dewatering basement and steam tunnel. Flood water from basement is stored on-site in six, 20,000 gallon frac tanks.

5/8 ~~Napp's contractor cleans steam tunnel.~~

- 5/9 Napp's contractor cleans/removes sludge from basement.
- 5/24, 6/9, 6/23 Hexcel's contractor makes plumbing and electrical repairs to treatment system. System is fully operational on 6/23.
- 5/30 ~~Soil samples were collected along the proposed sewer line. This sampling had been postponed from 4/21 due to the Napp explosion.~~
- 6/14-6/30 Frac tanks are dewatered and transported off-site by Napp's contractor. One tank remains on-site on 6/30.

We will continue to provide quarterly progress reports in accordance with ISRA requirements. Please call if you have any questions or need additional information.

Sincerely,

GEO ENGINEERING, INC.



Marjorie A. Piette
Project Manager

MAP/III

Enclosures

cc: A. William Nosil
Lisa Bromberg, Esq.
James Higdon

Appendix A

APPENDIX A.

Checklist of Responses to Items in NJDEP June 12, 1995 Letter

1. No response needed.
2. No response needed.
3. No response needed.
4. We have reviewed historical volatile organic results and compared them with the effective solubility to refine the DNAPL monitoring program (see Section 1 of the July 1995 progress report).
5. No response needed.
6. No response needed.
7. No response needed.
8. Estimated dates for proposal submittal and NJDEP review of the design of the permanent recovery system have been inserted into the enclosed estimated schedule (see Section 8).
9. We understand that the NJDEP may require automatic LNAPL pumps if thicker LNAPL layers are present when ground water is pumped. This will be considered after the permanent recovery system is operational.
10. No response needed.
11. Hexcel will explore the possibility of obtaining additional monitor well data from the Napp property. We presume that monitoring wells will be required for Napp's cleanup program and will seek access to the data from those wells (see Section 6).
12. Hexcel installed tubing in well MW-6, the one well that has consistently yielded DNAPL, on March 2, 1995. We have found that pumping from the bottom of the well is more efficient and effective than using a bailer. We will, therefore, also pump from the bottom of additional wells that may be added to the DNAPL recovery program (see Section 2).
13. No response needed.
14. We have resumed weekly product recovery, starting with the week of June 26, 1995 (see Section 2).
15. No response needed.
16. We will henceforth report whether product is DNAPL or LNAPL and the presence of product even at trace levels will trigger the addition of wells to our monthly monitoring and product recovery programs (see Sections 1, 2 and 3).
17. Progress on the sewer installation was delayed by the Napp explosion and its aftermath. The current scheduling estimate is indicated on the updated schedule table. The Stream Encroachment Permit was issued on April 6, 1995 (see Sections 5 and 8).
18. We are seeking ground water data on the opposite side of the Saddle River (see Section 6).
19. No response needed.



NOTE

20. A summary of the known effects of the Napp Technologies explosion on Hexcel's cleanup activities is included in Section 9.
21. No response needed.
22. No response needed.
23. No response needed.
24. No response needed.
25. No response needed.
26. There have been no changes to the cost estimate (see Section 8).

Appendix B

TABLE 1: SUMMARY OF QUARTERLY WATER LEVEL/PRODUCT THICKNESS MEASUREMENTS (4/10/95)
Former Hexcel Facility
Lodi, New Jersey

-All measurements in feet -
-All elevations in feet (NGVD)-

GEO Engineering, Inc.
July 1995
File: 94039/wldata/wlevels.xls
Entered by: MAW Checked by: SJA

Well ID	Type	Depth to Water	Depth to Product		Product Thickness	Depth to Bottom	Elevation Top of Casing	Water Elevation	Well Construction (all 4" diameter unless otherwise noted)		
			DNAPL	LNAPL					Type	Casing	Comments
RW Series:											
RW1-1	shall.	5.76	--	--	--	14.29	28.38	22.62	flush	s.steel	Trace LNAPL in clear bailer survey
RW6-1	shall.	4.18	13.54	--	0.22	13.76	28.84	24.66	flush	s.steel	Product on probe (DNAPL)
RW6-2	shall.	4.39	--	--	--	14.82	29.34	24.95	flush	s.steel	White, solid, granular substance on probe bottom
RW6-3	shall.						28.72		flush	s.steel	Well not included in quarterly monitoring plan
RW7-1	shall.	5.96	--	--	--	16.60	26.25	20.29	flush	s.steel	Product on probe (DNAPL)
RW7-2	shall.	6.50	--	--	--	16.82	26.48	19.98	flush	s.steel	
RW7-3	shall.	6.70	--	--	--	17.30	26.78	20.08	flush	s.steel	
RW7-4	shall.	7.04	18.66	--	0.44	19.10	27.11	20.07	flush	s.steel	Product on probe (DNAPL)
RW7-5	shall.	7.62	--	--	--	19.35	27.57	19.95	flush	s.steel	Trace product on probe (DNAPL)
RW7-6	shall.	6.70	--	--	--	15.00	26.48	19.78	flush	s.steel	
RW7-7	shall.	6.96	--	--	--	14.90	26.89	19.93	flush	s.steel	
RW7-8	shall.	5.86	--	--	--	14.98	25.90	20.04	flush	s.steel	
RW7-9	shall.	7.13	--	--	--	16.10	26.87	19.74	flush	s.steel	
RW7-10	shall.	7.12	--	--	--	14.12	26.10	18.98	flush	s.steel	
RW15-1	shall.	8.08	--	--	--	14.92	29.95	21.87	flush	s.steel	Resurveyed by GEO *
RW15-2	shall.						30.15		flush	s.steel	Resurveyed by GEO *
Well not included in quarterly monitoring plan											
P Series:											
P-1	shall.	7.63	--	--	--	10.03	30.09	22.46	flush	1.5" pvc	Resurveyed by GEO; diam. corrected to 1.5" *
P-2	shall.	8.32	--	--	--	11.30	30.19	21.87	flush	1.5" pvc	Resurveyed by GEO; diam. corrected to 1.5" *

882810013

TABLE 1: SUMMARY OF QUARTERLY WATER LEVEL/PRODUCT THICKNESS MEASUREMENTS (4/10/95)
Former Hexcel Facility
Lodi, New Jersey

-All measurements in feet -
-All elevations in feet (NGVD)-

GEO Engineering, Inc.
July 1995
File: 94039/wldata/wlevels.xls
Entered by: MAW Checked by: SJA

Well ID	Type	Depth to Water	Depth to Product		Product Thickness	Depth to Bottom	Elevation Top of Casing	Water Elevation	Well Construction (all 4" diameter unless otherwise noted)		
			DNAPL	LNAPL					Type	Casing	Comments
CW Series:											
CW-1	shall.	7.26	—	—	—	11.48	29.77	22.51	flush	s. steel	
CW-2	shall.						29.51		flush	s. steel	Well not included in quarterly monitoring plan
CW-3	recov.						29.72		flush	s. steel	Well not included in quarterly monitoring plan
CW-4	shall.	6.24	—	—	—	10.98	29.00	22.76	flush	s. steel	
CW-5	recov.						28.67		flush	s. steel	Well not included in quarterly monitoring plan
CW-6	shall.						28.93		flush	s. steel	Well not included in quarterly monitoring plan
CW-7	shall.	7.06	—	—	—	14.00	26.13	19.07	flush	s. steel	Product on probe (LNAPL)
CW-8	shall.	7.90	—	—	—	13.90	26.77	18.87	flush	s. steel	
CW-9	recov.						26.37		flush	s. steel	Well not included in quarterly monitoring plan
CW-10	shall.	7.15	—	—	—	10.24	25.91	18.76	flush	s. steel	
CW-11	recov.						25.74		vaultbox	s. steel	Well not included in quarterly monitoring plan
CW-12	shall.	6.80	13.80	—	0.18	13.98	25.71	18.91	flush	s. steel	Product on probe and probe tape (DNAPL, LNAPL)
CW-13	shall.						26.05		flush	s. steel	Well not included in quarterly monitoring plan
CW-14	shall.	7.78	—	—	—	13.90	26.37	18.59	flush	s. steel	
CW-15	recov.						26.31		flush	s. steel	Well not included in quarterly monitoring plan
CW-16	shall.	7.03	—	—	—	13.92	26.45	19.42	flush	s. steel	Product on probe (DNAPL)
CW-17	shall.						26.25		flush	s. steel	Not accessible due to drums
CW-18	recov.						26.61		flush	s. steel	Well not included in quarterly monitoring plan
CW-19	shall.						26.50		flush	s. steel	Well not included in quarterly monitoring plan
CW-20	shall.						26.74		flush	s. steel	Well not included in quarterly monitoring plan
CW-21	recov.						26.77		flush	s. steel	Well not included in quarterly monitoring plan
CW-22	shall.						26.35		flush	s. steel	Well not included in quarterly monitoring plan

882810014

TABLE 1: SUMMARY OF QUARTERLY WATER LEVEL/PRODUCT THICKNESS MEASUREMENTS (4/10/95)
Former Hexcel Facility
Lodi, New Jersey

-All measurements in feet -
-All elevations in feet (NGVD)-

GEO Engineering, Inc.
July 1995
File: 94039/wldata/wlevels.xls
Entered by: MAW Checked by: SJA

Well ID	Type	Depth to Water	Depth to Product		Product Thickness	Depth to Bottom	Elevation Top of Casing	Water Elevation	Well Construction (all 4" diameter unless otherwise noted)		
			DNAPL	LNAPL					Type	Casing	Comments
MW Series:											
MW-1	deep	10.19	--	--	--	23.54	32.42	22.23	stickup	pvc	
MW-2	shall.	8.89	--	--	--	10.27	31.00	22.11	stickup	pvc	
MW-3	deep	10.28	--	--	--	30.77	31.13	20.85	stickup	pvc	
MW-4	shall.	8.04	--	--	--	9.92	32.33	24.29	stickup	pvc	
MW-5	deep	11.12	--	--	--	28.34	32.54	21.42	stickup	pvc	
MW-6	shall.	10.28	--	--	--	18.30	30.74	20.46	stickup	pvc	Trace product on probe (DNAPL)
MW-7	deep	9.66	--	--	--	32.90	30.68	21.02	stickup	pvc	
MW-8	shall.	11.12	--	--	--	17.36	30.26	19.14	stickup	pvc	Product on probe (DNAPL)
MW-9	deep	8.82	--	--	--	29.60	29.83	21.01	stickup	pvc	
MW-10	shall.	11.94	--	--	--	16.78	30.83	18.89	stickup	pvc	
MW-11	deep	10.02	--	--	--	33.36	30.78	20.76	stickup	pvc	
MW-12	shall.	10.61	--	--	--	16.95	31.01	20.40	stickup	pvc	
MW-13	deep	9.76	--	--	--	32.94	31.16	21.40	stickup	pvc	
MW-14	shall.	10.62	--	--	--	15.61	30.70	20.08	stickup	pvc	
MW-15	deep	8.92	--	--	--	25.61	30.77	21.85	stickup	pvc	
MW-16	shall.	7.99	--	--	--	12.58	29.69	21.70	stickup	pvc	
MW-17	shall.	9.40	--	--	--	14.10	31.53	22.13	stickup @	pvc	
MW-18	shall.	9.74	--	--	--	11.36	32.23	22.49	stickup	pvc	
MW-19	deep	7.19	--	--	--	26.50	29.08	21.89	stickup	pvc	
MW-20	shall.	4.99	--	--	--	20.06	27.95	22.96	flush	pvc	

882810015

TABLE 1: SUMMARY OF QUARTERLY WATER LEVEL/PRODUCT THICKNESS MEASUREMENTS (4/10/95)
Former Hexcel Facility
Lodi, New Jersey

-All measurements in feet -
-All elevations in feet (NGVD)-

GEO Engineering, Inc.
July 1995
File: 94039/wldata/wlevels.xls
Entered by: MAW Checked by: SJA

Well ID	Type	Depth to Water	Depth to Product		Product Thickness	Depth to Bottom	Elevation Top of Casing	Water Elevation	Well Construction (all 4" diameter unless otherwise noted)		
			DNAPL	LNAPL					Type	Casing	Comments
MW Series:											
MW-21	shall.	8.94	--	--	--	15.12	30.67	21.73	stickup	pvc	
MW-22	shall.	6.08	--	--	--	8.23	28.45	22.37	flush	pvc	
MW-23	shall.	5.21	--	--	--	9.71	27.51	22.30	flush	pvc	
MW-24	shall.	4.62	--	--	--	9.50	26.51	21.89	flush	pvc	
MW-25	shall.	7.14	--	--	--	12.73	26.03	18.89	flush	pvc	
MW-26	deep	7.41	17.70	--	0.24	17.94	28.85	21.44	flush	2" pvc	Product on probe (DNAPL)
MW-27	shall.	7.13	--	--	--	12.54	31.43	24.30	stickup	pvc	
MW-28	shall.	9.96	--	--	--	14.78	29.68	19.72	stickup	pvc	
MW-29	shall.	5.06	--	--	--	9.35	27.32	22.26	flush	pvc	
MW-30	shall.	5.75	--	--	--	10.48	28.08	22.33	flush	pvc	
MW-31	shall.	5.80	--	--	--	10.66	27.95	22.15	flush	pvc	
MW-32	shall.	9.08	--	--	--	11.29	32.51	23.43	stickup	pvc	
MW-33	shall.	9.96	--	--	--	16.98	31.72	21.76	stickup	pvc	

NOTES: -- - Not detected by product interface meter.

* - Wells RW15-1, RW15-2, P-1 and P-2 were resurveyed by GEO and there were differences from the previous top of casing elevations. The corrected elevations are indicated in the above table. In addition, the interior diameter of wells P-1 and P-2 was found to measure 1.5", not 2" as previously reported.

@ - Well MW-17 is a stick-up, not a flush mount as previously reported.

Many of the wells have accumulated sediment which results in slight fluctuations in the measurements of depth to bottom.

882810016

TABLE 2: SUMMARY OF WELL CONSTRUCTION DATA
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July 1995
File: 94039/wldata/wellscrm.xls
Sheet: Modified
Entered by: SG; Checked by: SJA

-All measurements in feet -
-All elevations in feet (NGVD)-

Well ID	Type	Ground Elevation	Elevation Top of Casing	Depth to Bottom (From GS)	Length of Screen	Elevation Top of Screen	Depth to Water (04/10/95)	Water Elevation	Well Construction *		Installation		Water Elv. > Top of Screen Elv.
									Type	Casing	Date	By	
RW Series:													
RW1-1	shall.	28.67	28.38	15.00	10	23.67	5.76	22.62	flush	s.steel	10/91	Heritage	No
RW6-1	shall.	29.28	28.84	14.00	5	20.28	4.18	24.66	flush	s.steel	8/90	Heritage	Yes
RW6-2	shall.	U	29.34	16.00	5	U	4.39	24.95	flush	s.steel	8/90	Heritage	U
RW6-3	shall.	29.02	28.72	8.60	5	25.42	NI	NI	flush	s.steel	8/90	Heritage	NI
RW7-1	shall.	26.94	26.25	18.00	5	13.94	5.96	20.29	flush	s.steel	8/90	Heritage	Yes
RW7-2	shall.	27.07	26.48	17.50	5	14.57	6.50	19.98	flush	s.steel	8/90	Heritage	Yes
RW7-3	shall.	27.17	26.78	17.50	5	14.67	6.70	20.08	flush	s.steel	8/90	Heritage	Yes
RW7-4	shall.	27.60	27.11	19.00	5	13.60	7.04	20.07	flush	s.steel	8/90	Heritage	Yes
RW7-5	shall.	27.97	27.57	20.00	5	12.97	7.62	19.95	flush	s.steel	9/90	Heritage	Yes
RW7-6	shall.	27.10	26.48	15.00	5	17.10	6.70	19.78	flush	s.steel	9/90	Heritage	Yes
RW7-7	shall.	27.25	26.89	15.00	5	17.25	6.96	19.93	flush	s.steel	9/90	Heritage	Yes
RW7-8	shall.	26.71	25.90	15.00	5	16.71	5.86	20.04	flush	s.steel	9/90	Heritage	Yes
RW7-9	shall.	27.18	26.87	17.00	5	15.18	7.13	19.74	flush	s.steel	2/91	Heritage	Yes
RW7-10	shall.	26.50	26.10	15.00	5	16.50	7.12	18.98	flush	s.steel	2/91	Heritage	Yes
RW15-1	shall.	30.43	29.95	14.75	10	25.68	8.08	21.87	flush	s.steel	8/90	Heritage	No
RW15-2	shall.	30.37	30.15	14.00	10	26.37	NI	NI	flush	s.steel	8/90	Heritage	NI
P Series:													
P-1	shall.	U	30.09	U	U	U	7.63	22.46	flush	1.5" pvc	U	U	U
P-2	shall.	U	30.19	U	U	U	8.32	21.87	flush	1.5" pvc	U	U	U

882810017

TABLE 2: SUMMARY OF WELL CONSTRUCTION DATA
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July 1995
File: 94039/wldata/wellscrn.xls
Sheet: Modified
Entered by: SG; Checked by: SJA

-All measurements in feet -
-All elevations in feet (NGVD)-

Well ID	Type	Ground Elevation	Elevation Top of Casing	Depth to Bottom (From GS)	Length of Screen	Elevation Top of Screen	Depth to Water (04/10/95)	Water Elevation	Well Construction *		Installation		Water Elv. > Top of Screen Elv.
									Type	Casing	Date	By	
CW Series:													
CW-1	shall.	30.27	29.77	12.00	5	23.27	7.26	22.51	flush	s.steel	9/90	Heritage	No
CW-2	shall.	30.11	29.51	12.00	5	23.11	NI	NI	flush	s.steel	9/90	Heritage	NI
CW-3	recov.	U	29.72	12.00	5	U	NI	NI	flush	s.steel	9/90	Heritage	NI
CW-4	shall.	29.10	29.00	11.50	5	22.60	6.24	22.76	flush	s.steel	7/90	Heritage	Yes
CW-5	recov.	28.89	28.67	11.50	5	22.39	NI	NI	flush	s.steel	7/90	Heritage	NI
CW-6	shall.	29.25	28.93	9.00	5	25.25	NI	NI	flush	s.steel	9/90	Heritage	NI
CW-7	shall.	26.70	26.13	14.00	5	17.70	7.06	19.07	flush	s.steel	8/90	Heritage	Yes
CW-8	shall.	26.70	26.77	14.00	5	17.70	7.90	18.87	flush	s.steel	8/90	Heritage	Yes
CW-9	recov.	26.60	26.37	14.00	5	17.60	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-10	shall.	26.50	25.91	14.00	5	17.50	7.15	18.76	flush	s.steel	8/90	Heritage	Yes
CW-11	recov.	26.60	25.74	14.00	5	17.60	NI	NI	vaultbox	s.steel	8/90	Heritage	NI
CW-12	shall.	26.51	25.71	14.00	5	17.51	6.80	18.91	flush	s.steel	8/90	Heritage	Yes
CW-13	shall.	26.60	26.05	14.00	5	17.60	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-14	shall.	26.70	26.37	14.00	5	17.70	7.78	18.59	flush	s.steel	8/90	Heritage	Yes
CW-15	recov.	26.90	26.31	14.00	5	17.90	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-16	shall.	27.00	26.45	14.00	5	18.00	7.03	19.42	flush	s.steel	8/90	Heritage	Yes
CW-17	shall.	27.10	26.25	14.00	5	18.10	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-18	recov.	27.20	26.61	14.00	5	18.20	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-19	shall.	27.20	26.50	14.00	5	18.20	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-20	shall.	27.30	26.74	14.00	5	18.30	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-21	recov.	27.40	26.77	14.00	5	18.40	NI	NI	flush	s.steel	8/90	Heritage	NI
CW-22	shall.	27.30	26.35	14.00	5	18.30	NI	NI	flush	s.steel	8/90	Heritage	NI

882810018

TABLE 2: SUMMARY OF WELL CONSTRUCTION DATA
Former Hexcel Facility
Lodi, New Jersey

-All measurements in feet -
-All elevations in feet (NGVD)-

GEO Engineering, Inc.
July 1995
File: 94039/wldata/wellscrn.xls
Sheet: Modified
Entered by: SG; Checked by: SJA

Well ID	Type	Ground Elevation	Elevation Top of Casing	Depth to Bottom (From GS)	Length of Screen	Elevation Top of Screen	Depth to Water (04/10/95)	Water Elevation	Well Construction *		Installation		Water Elv. > Top of Screen Elv.
									Type	Casing	Date	By	
MW Series:													
MW-1	deep	29.03	32.42	20.15	5	13.88	10.19	22.23	stickup	pvc	7/88	Environ	Yes
MW-2	shall.	27.90	31.00	6.77	5	26.13	8.89	22.11	stickup	pvc	8/88	Environ	No
MW-3	deep	27.84	31.13	27.54	5	5.30	10.28	20.85	stickup	pvc	8/88	Environ	Yes
MW-4	shall.	29.02	32.33	6.53	5	27.49	8.04	24.29	stickup	pvc	8/88	Environ	No
MW-5	deep	29.03	32.54	24.91	5	9.12	11.12	21.42	stickup	pvc	8/88	Environ	Yes
MW-6	shall.	27.14	30.74	15.02	10	22.12	10.28	20.46	stickup	pvc	8/88	Environ	No
MW-7	deep	27.18	30.68	29.63	5	2.55	9.66	21.02	stickup	pvc	7/88	Environ	Yes
MW-8	shall.	26.92	30.26	13.94	10	22.98	11.12	19.14	stickup	pvc	8/88	Environ	No
MW-9	deep	26.89	29.83	26.80	5	5.09	8.82	21.01	stickup	pvc	7/88	Environ	Yes
MW-10	shall.	27.33	30.83	13.52	11	24.81	11.94	18.89	stickup	pvc	8/88	Environ	No
MW-11	deep	27.28	30.78	30.42	10	6.86	10.02	20.76	stickup	pvc	7/88	Environ	Yes
MW-12	shall.	27.62	31.01	13.57	10	24.05	10.61	20.40	stickup	pvc	8/88	Environ	No
MW-13	deep	27.63	31.16	29.74	5	2.89	9.76	21.40	stickup	pvc	7/88	Environ	Yes
MW-14	shall.	27.12	30.70	11.94	9	24.18	10.62	20.08	stickup	pvc	8/88	Environ	No
MW-15	deep	27.17	30.77	22.04	5	10.13	8.92	21.85	stickup	pvc	7/88	Environ	Yes
MW-16	shall.	26.71	29.69	9.57	5	22.14	7.99	21.70	stickup	pvc	8/88	Environ	No
MW-17	shall.	29.10	31.53	12.00	8	25.10	9.40	22.13	stickup	pvc	1/89	Environ	No
MW-18	shall.	29.04	32.23	8.07	5	25.97	9.74	22.49	stickup	pvc	8/88	Environ	No
MW-19	deep	27.30	29.08	25.00	5	7.30	7.19	21.89	stickup	pvc	1/89	Environ	Yes
MW-20	shall.	28.50	27.95	20.00	5	13.50	4.99	22.96	flush	pvc	11/90	Heritage	Yes

882810019

TABLE 2: SUMMARY OF WELL CONSTRUCTION DATA
Former Hexcel Facility
Lodi, New Jersey

-All measurements in feet -
-All elevations in feet (NGVD)-

GEO Engineering, Inc.
July 1995
File: 94039/wldata/wellscrm.xls
Sheet: Modified
Entered by: SG; Checked by: SJA

Well ID	Type	Ground Elevation	Elevation Top of Casing	Depth to Bottom (From GS)	Length of Screen	Elevation Top of Screen	Depth to Water (04/10/95)	Water Elevation	Well Construction *		Installation		Water Elv. > Top of Screen Elv.
									Type	Casing	Date	By	
MW Series:													
MW-21	shall.	28.80	30.67	13.00	10	25.80	8.94	21.73	stickup	pvc	9/90	Heritage	No
MW-22	shall.	28.73	28.45	8.50	5	25.23	6.08	22.37	flush	pvc	12/90	Heritage	No
MW-23	shall.	27.83	27.51	10.00	5	22.83	5.21	22.30	flush	pvc	11/90	Heritage	No
MW-24	shall.	26.93	26.51	10.00	5	21.93	4.62	21.89	flush	pvc	11/90	Heritage	No
MW-25	shall.	26.47	26.03	13.00	10	23.47	7.14	18.89	flush	pvc	9/90	Heritage	No
MW-26	deep	29.26	28.85	19.00	2	12.26	7.41	21.44	flush	2" pvc	12/90	Heritage	Yes
MW-27	shall.	29.10	31.43	10.00	5	24.10	7.13	24.30	stickup	pvc	9/90	Heritage	Yes
MW-28	shall.	27.50	29.68	13.00	10	24.50	9.96	19.72	stickup	pvc	9/90	Heritage	No
MW-29	shall.	27.50	27.32	10.00	5	22.50	5.06	22.26	flush	pvc	2/91	Heritage	No
MW-30	shall.	28.25	28.08	11.00	5	22.25	5.75	22.33	flush	pvc	2/91	Heritage	Yes
MW-31	shall.	28.33	27.95	11.00	5	22.33	5.80	22.15	flush	pvc	2/91	Heritage	No
MW-32	shall.	U	32.51	8.00	6	U	9.08	23.43	stickup	pvc	4/92	Heritage	U
MW-33	shall.	U	31.72	14.00	10	U	9.96	21.76	stickup	pvc	4/92	Heritage	U

NOTES: NI Well not included in the 4/10/95 Quarterly Monitoring or well was inaccessible on that date.
U Unknown.
* All wells 4" diameter unless otherwise noted.

None of the above wells were installed by GEO Engineering, Inc. The following sources were used in compiling this table:

1. Table titled "Well Data Master File", July 1991, prepared by Heritage Remediation/Engineering, Inc. Table was submitted by Heritage to the NJDEP in their July 1991 Progress Report.
2. Table titled "Monitoring Well Data", November 1988, prepared by ENVIRON Corporation.
3. Boring/Well Logs prepared by Heritage and ENVIRON.
4. Progress and/or other reports submitted by Heritage and/or ENVIRON to the NJDEP.
5. LNAPL Monitoring Forms submitted by Killam Associates/Consulting Engineers in their Progress Reports
6. Well elevation surveys performed by Boswell Engineering, Inc. and GEO.
7. Field measurements recorded by GEO.

Contour Map Reporting Form

Site Name: Former Hexcel Facility, Lodi, NJ
Project No.: 94039

Figure No. (with contours): 1
File: I:\wldata\contours.doc

1. Did any surveyed well casing elevations change from the previous sampling event? ☐ Yes
If yes, attach new "Well Certification -Form B" and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.) ☒ No

2. Are there any monitor wells in unconfined aquifers in which the water table elevation is higher than the top of the well screen? ☒ Yes
If yes, identify these wells. ☐ No

Monitor wells for which the water table elevations are higher than the top of the well screen are identified in Table 2: Summary of Well Construction Data provided in Appendix B.

3. Are there any monitor wells present at the site but omitted from the contour map? ☒ Yes
Unless the omission of the well(s) has been previously approved by the Department, justify the omissions. ☐ No

See October 24, 1994 progress report for justification of wells chosen for contouring.

4. Are there any monitor wells containing separate phase product during this measuring event? ☒ Yes
Were any of the monitor wells with separate phase product included in the ground water contour map? ☐ No
If yes show the formula used to correct the water table elevation. ☒ Yes
☐ No

Separate phase product, where measurable, consists of DNAPL, not LNAPL; therefore, no correction is necessary.

5. Has the ground water flow direction changed more than 45 degrees from the previous ground water contour map? ☐ Yes
If yes, discuss the reasons for the change. ☒ No

6. Has ground water mounding and/or depressions been identified in the ground water contour map? ☒ Yes
Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence. ☐ No

It is not known why mounding occurs in the vicinity of building 2.

7. Are all the wells used in the contour map screened in the same water-bearing zone?
If no, justify inclusion of those wells.

☒ Yes
☐ No

8. Were the ground water contours

☒ computer generated, ☐ computer aided, or ☐ hand-drawn?

If computer aided or generated, identify the interpolation method(s) used.

Kriging Routine

Contour Map Reporting Form

Site Name: Former Hexcel Facility, Lodi, NJ
Project No.: 94039

Figure No. (with contours): 2
File: I:\wldata\contourd.doc

1. Did any surveyed well casing elevations change from the previous sampling event? ☐ Yes
If yes, attach new "Well Certification -Form B" and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.) ☒ No

2. Are there any monitor wells in unconfined aquifers in which the water table elevation is higher than the top of the well screen? ☐ Yes
If yes, identify these wells. ☒ No

Not applicable because confined aquifer.

3. Are there any monitor wells present at the site but omitted from the contour map? ☐ Yes
Unless the omission of the well(s) has been previously approved by the Department, justify the omissions. ☒ No

4. Are there any monitor wells containing separate phase product during this measuring event? ☒ Yes
☐ No
Were any of the monitor wells with separate phase product included in the ground water contour map? ☒ Yes
If yes show the formula used to correct the water table elevation. ☐ No

Separate phase product, where measurable, consists of DNAPL, not LNAPL; therefore, no correction is necessary.

5. Has the ground water flow direction changed more than 45 degrees from the previous ground water contour map? ☐ Yes
If yes, discuss the reasons for the change. ☒ No

6. Has ground water mounding and/or depressions been identified in the ground water contour map? ☐ Yes
Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence. ☒ No

7. Are all the wells used in the contour map screened in the same water-bearing zone? ☒ Yes
If no, justify inclusion of those wells. ☐ No

8. Were the ground water contours

☒ computer generated, ☐ computer aided, or ☐ hand-drawn?

If computer aided or generated, identify the interpolation method(s) used.

Kriging method.

Appendix C

TABLE 3: SUMMARY OF MONTHLY WATER LEVEL/PRODUCT THICKNESS MEASUREMENTS
FOR MAY 1995
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July 1995
File: 94039/wldata/wlevels.xls
Entered by: SJA Check: SG

-All measurements in feet -
-All elevations in feet (NGVD)-

Well ID	Type	Depth to Water	Depth to Product		Product Thickness	Depth to Bottom	Elevation Top of Casing	Water Elevation	Comments
			DNAPL	LNAPL					
MEASUREMENTS COLLECTED 5/10/95 (unless otherwise noted)									
CW-7	shallow	7.26	--	--	--	13.96	26.13	18.87	Product on probe (LNAPL)
CW-12	shallow	7.12	--	--	--	13.93	25.71	18.59	Product on probe (DNAPL, possible LNAPL also)
CW-16	shallow						26.45		Well inaccessible, covered by drums
MW-6	shallow	10.07	--	--	--	18.31	30.74	20.67	Trace product on probe (DNAPL)
MW-8	shallow	11.78	--	--	--	17.33	30.26	18.48	Product on probe (DNAPL)
MW-23 @	shallow	4.22	--	--	--	9.60	27.51	23.29	Product on probe (LNAPL)
MW-26	deep	7.82	--	--	--	17.89	28.85	21.03	
RW1-1	shallow	4.99	--	--	--	14.25	28.38	23.39	
RW6-1	shallow	3.87	--	--	--	13.74	28.84	24.97	
RW7-1	shallow	5.76	--	--	--	16.57	26.25	20.49	Trace product on probe (DNAPL)
RW7-4	shallow	7.00	--	--	--	19.09	27.11	20.11	Product on probe (DNAPL)
RW7-5	shallow						27.57		Well inadvertently omitted from monitoring event
P-2	shallow	7.14	--	--	--	11.98	30.06	22.92	Product on probe (LNAPL)

NOTES: -- Not detected by product interface meter.

@ Measurement collected on May 9, 1995.

Many of the wells have accumulated sediment which results in slight fluctuations in the measurements of depth to bottom.

882810026

TABLE 4: SUMMARY OF MONTHLY WATER LEVEL/PRODUCT THICKNESS MEASUREMENTS
FOR JUNE 1995
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July 1995
File: 94039/wldata/wlevels.xls
Entered by: SJA Check: SG

-All measurements in feet -
-All elevations in feet (NGVD)-

Well ID	Type	Depth to Water	Depth to Product		Product Thickness	Depth to Bottom	Elevation Top of Casing	Water Elevation	Comments
			DNAPL	LNAPL					
MEASUREMENTS COLLECTED 6/6/95									
CW-7	shallow	7.28 *	--	7.26	0.19	13.95	26.13	18.85	Measured DTW is 7.45; product on probe (LNAPL)
CW-12	shallow	7.37	--	--	--	13.91	25.71	18.34	Product on probe (LNAPL and DNAPL)
CW-16	shallow	7.91	13.72	--	0.15	13.87	26.45	18.54	Product on probe (LNAPL and DNAPL)
MW-6	shallow	10.24	--	--	--	18.30	30.74	20.50	Product on probe (DNAPL) **
MW-8	shallow	12.12	--	--	--	17.30	30.26	18.14	Product on probe (DNAPL)
MW-23	shallow	4.68	--	--	--	9.64	27.51	22.83	Trace product on probe (LNAPL)
MW-26	deep	7.67	--	--	--	17.88	28.85	21.18	Trace product on probe (DNAPL)
RW1-1	shallow	5.27	--	--	--	14.23	28.38	23.11	Trace product on probe (LNAPL)
RW6-1	shallow						28.84		Well inaccessible, covered by drums
RW7-1	shallow	5.98	16.35	--	0.20	16.55	26.25	20.27	Product on probe (DNAPL)
RW7-4	shallow	7.15	--	--	--	19.08	27.11	19.96	Product on probe (DNAPL)
RW7-5	shallow	7.72	--	--	--	19.31	27.57	19.85	Product on probe (DNAPL)
P-2	shallow	7.66	--	--	--	11.92	30.06	22.40	Product on probe (LNAPL)

NOTES: — Not detected by product interface meter.

* - In wells with LNAPL, water levels are corrected using the equation: DTW (corrected) = DTW (measured) - (Product thickness * specific gravity).
Specific gravity of 0.88 used for water level correction (petroleum lubricating oil).

** - A trace amount of LNAPL was detected at MW-6 during DNAPL recovery on June 28, 1995.

Many of the wells have accumulated sediment which results in slight fluctuations in the measurements of depth to bottom.

882810027

Appendix D

TABLE 5: SOLUBILITY DATA FOR DNAPL COMPOUNDS
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July 1995
File: 94039/database/EXCDSOLB.xls
Sheet: Solubility Data
BY: SG; Check: SJA

Constituent	Temperature (Degree C)	Solubility (mg/L)	1% of Solubility (mg/L)
1,1,1-Trichloroethane	20	4400	44
1,1,2,2-Tetrachloroethane	20	2900	29
1,1,2-Trichloroethane	20	4500	45
1,1-Dichloroethane	20	5500	55
1,1-Dichloroethene *	25	2500	25
1,2-Dichlorobenzene	20	100	1
1,2-Dichloroethane	20	8690	86.9
1,2-Dichloropropane	20	2700	27
1,3-Dichlorobenzene	22	69	0.69
1,4-Dichlorobenzene	22	49	0.49
2-Chloroethylvinyl ether *	25	15000	150
Bromodichloromethane *	22	4700	47
Bromoform*	20	1000	10
Bromomethane	20	900	9
Carbon Disulfide	22	2300	23
Carbon Tetrachloride	20	800	8
Chlorobenzene	20	500	5
Chloroform	20	8000	80
cis-1,3-Dichloropropene*	25	2700	27
cis-1,2-Dichloroethene	20	800	8
Dibromochloromethane *	22	4400	44
Methylene Chloride	20	20000	200
Tetrachloroethene	25	150	1.5
trans-1,2-Dichloroethene	20	600	6
trans-1,3-Dichloropropene*	20	2800	28
Trichloroethene**	25	1100	11

NOTES

Unless otherwise specified, Solubility Data are from Handbook of Environmental Data on Organic Chemicals (Second Edition); Karel Verschueren, Van Nostrand Reinhold Company Inc., 1983.

- * Solubility Data from the On-line Toxicology Data Network, Specialized Information Services Division, The National Library of Medicine.
- ** Solubility Data from Chemodynamics: Environmental Movement of Chemicals in Air, Water, and Soil; L.J. Thibodeaux, John Wiley & Sons, Inc., 1979.

TABLE 6: WELLS WITH DNAPL COMPOUND CONCENTRATIONS
EXCEEDING THE 1% SOLUBILITY CRITERIA*
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July 1995
File: 94039/database/EXCDSOLB.xls
Sheet: Well Data
BY: SG; Check: SJA

Well ID	Constituent	1% of Solubility (mg/L)	Concentration (mg/L)	Date of Most Recent Sampling
MW-4	Tetrachloroethene	1.5	1.7	7/27/93
MW-6	Chlorobenzene	5	6.9	7/28/93
MW-8	Chlorobenzene	5	69	7/27/93
	1,2-Dichlorobenzene	1	5.5	
	Tetrachloroethene	1.5	8.2	
MW-10	Chlorobenzene	5	7	7/28/93
MW-17	1,2-Dichlorobenzene	1	1.2	7/27/93
	cis-1,2-Dichloroethene	8	35	
	Tetrachloroethene	1.5	2.6	
MW-18	Chlorobenzene	5	7.1	7/27/93
	1,4-Dichlorobenzene	0.49	0.94	
	cis-1,2-Dichloroethene	8	42	
MW-22	1,2-Dichlorobenzene	1	2.1	7/27/93
	cis-1,2-Dichloroethene	8	120	
	Methylene Chloride	200	270	
MW-26	1,2-Dichlorobenzene	1	3.10	12/1/90
	Chlorobenzene	5	15.7	
	Tetrachloroethene	1.5	3.02	
MW-27	1,2-Dichlorobenzene	1	7.61	11/1/90
	Chlorobenzene	5	14.98	
	Tetrachloroethene	1.5	219.4	
	Trichloroethene	11	135.8	
CW-3	1,2-Dichlorobenzene	1	5.3	7/27/93
	cis-1,2-Dichloroethene	8	80	
	Tetrachloroethene	1.5	2.9	
CW-5	1,2-Dichlorobenzene	1	5.6	7/27/93
	1,4-Dichlorobenzene	0.49	0.74	
	cis-1,2-Dichloroethene	8	160	
	Methylene Chloride	200	500	
	Tetrachloroethene	1.5	39	
	Trichloroethene	11	81	
CW-9	Chlorobenzene	5	5.2	7/27/93
CW-11	Chlorobenzene	5	52	7/27/93

TABLE 6: WELLS WITH DNAPL COMPOUND CONCENTRATIONS
EXCEEDING THE 1% SOLUBILITY CRITERIA*
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July 1995
File: 94039/database/EXCDSOLB.xls
Sheet: Well Data
BY: SG; Check: SJA

Well ID	Constituent	1% of Solubility (mg/L)	Concentration (mg/L)	Date of Most Recent Sampling
CW-14	Chlorobenzene	5	17	7/28/93
CW-15	Chlorobenzene	5	76	7/27/93
	1,2-Dichlorobenzene	1	4.6	
	cis-1,2-Dichloroethene	8	22	
	Tetrachloroethene	1.5	11	
CW-18	Chlorobenzene	5	16	7/27/93
CW-21	Chlorobenzene	5	11	7/27/93
RW6-1	1,2-Dichlorobenzene	1	27.98	11/1/90
	1,3-Dichlorobenzene	0.69	1.90	
	1,4-Dichlorobenzene	0.49	0.87	
	Chlorobenzene	5	27.98	
	Tetrachloroethene	1.5	2.73	
RW6-2	Chlorobenzene	5	110	7/28/93
	1,2-Dichlorobenzene	1	2.5	
	1,2-Dichloroethane	86.9	180	
	Methylene Chloride	200	250	
	Tetrachloroethene	1.5	5.4	
RW6-3	1,2-Dichlorobenzene	1	28.22	11/1/90
	Chlorobenzene	5	118.3	
	Tetrachloroethene	1.5	52.08	

NOTES

- * For the wells which have been sampled more than once, the most recent analytical results have been used for comparison with the solubility criteria.

TABLE 7: SUMMARY OF WELLS EXCEEDING 1% SOLUBILITY CRITERIA*
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July 1995
File: 94039/database/EXCDSOLB.xls
Sheet: 1% Criteria Wells
BY: SG; Check: SJA

- 1) Wells are already part of the monthly monitoring program:

MW-6
MW-8
MW-26
RW6-1

- 2) Wells are part of the quarterly monitoring program and no DNAPL has been detected for the past three quarters:

MW-4
MW-10
MW-17
MW-18
MW-22
MW-27
CW-14
RW6-2

- 3) Wells are not part of the monthly or quarterly monitoring program:

- a) Wells are not practical to add to the monitoring programs due to the recovery equipment installed in them:

CW-3
CW-5
CW-9
CW-11
CW-15
CW-18
CW-21

- b) Well will be added to the monthly monitoring program:

RW6-3

NOTES

- * Criteria set forth by the NJDEP in its June 12, 1995 letter as wells in which one or more compound was detected in excess of 1% of its solubility during the well's most recent round of sampling.

Source:

Killam Associates/Consulting Engineers August 1993 Monthly Progress Report
WELL SAMPLING LOGOWNER'S WELL NO.: CW - 3CLIENT: Hexcel Corporation ETKA NO.: 225300SITE LOCATION: Lodi, New Jersey DATE: 7/27/93NJDEPE CASE NO.: 86009 NJDEPE WELL PERMIT NO.: 26-21221-8WELL TYPE: Monitoring - 4 inch PVC

GEOLOGIC FORMATION: _____

ELEVATION-Top of Casing: 29.72 ft ELEVATION-Ground Surface: _____ ftTOTAL WELL DEPTH FROM TOC: 11.28 ft DEPTH TO SCREEN FROM TOC: _____ ft

PURGE INFORMATIONDEPTH TO WATER FROM TOC: 7.56 ft ORGANIC VAPOR READINGS: 0 PPMDEPTH TO FREE PRODUCT: NA ft FREE PRODUCT THICKNESS: NA ftPURGE METHOD: Centrifugal PumpONE WELL VOLUME: 2.4 Gal TOTAL PURGE VOLUME: 1.0 GalPURGE TIME START: 11:18 PURGE TIME FINISH: 11:21DTW AFTER PURGING: dry ft PURGE RATE: 0.3 GPM

PURGE CHEMISTRIES: TEMP(C) Ph COND(uS) TDS

1ST VOL 22° 6.6 970 8602ND VOL --- --- --- ---3RD VOL --- --- --- ---SAMPLING INFORMATION:SAMPLE NUMBER: 93-0727-CW3 SAMPLE METHOD PVC BailorSAMPLE TIME START: 13:20DTW BEFORE SAMPLING 7.39 ft DTW AFTER SAMPLING: 8.38 ftSAMPLE CHEMISTRIES: TEMP.(C) 24° pH 7.6 COND(uS) 1360 TDS _____SAMPLE ANALYSIS: VOA + 15, PCBFIELD PERSONNEL: Susan Waddell, George Spangenberg, Joe Cajiao, Inés Torres, Dan FlatinOBSERVATIONS & COMMENTS: Well produced only one volume.

882810033

WELL SAMPLING LOG

OWNER'S WELL NO.: CW - 5

CLIENT: Hexcel Corporation ETKA NO.: 225300

SITE LOCATION: Lodi, New Jersey DATE: 7/27/93

NJDEPE CASE NO.: 86009 NJDEPE WELL PERMIT NO.: _____

WELL TYPE: Monitoring - 4 inch PVC

GEOLOGIC FORMATION: _____

ELEVATION-Top of Casing: 28.67 ft ELEVATION-Ground Surface: 28.89 ft

TOTAL WELL DEPTH FROM TOC: 9.15 ft DEPTH TO SCREEN FROM TOC: _____ ft

PURGE INFORMATION

DEPTH TO WATER FROM TOC: 6.27 ft ORGANIC VAPOR READINGS: 0 PPM

DEPTH TO FREE PRODUCT: NA ft FREE PRODUCT THICKNESS: NA ft

PURGE METHOD: Centrifugal Pump

ONE WELL VOLUME: 1.8 Gal TOTAL PURGE VOLUME: 7.0 Gal

PURGE TIME START: 11:34 PURGE TIME FINISH: 11:43

DTW AFTER PURGING: 8.73 ft PURGE RATE: 0.8 GPM

PURGE CHEMISTRIES: TEMP(C) Ph COND(uS) TDS

1ST VOL 24° 6.8 >2000 _____

2ND VOL 25° 7.3 >2000 _____

3RD VOL 25° 7.3 >2000 _____

SAMPLING INFORMATION:

SAMPLE NUMBER: 93-0727-CW5 SAMPLE METHOD PVC Bailor

SAMPLE TIME START: 13:05

DTW BEFORE SAMPLING 6.22 ft DTW AFTER SAMPLING: 6.27 ft

SAMPLE CHEMISTRIES: TEMP.(C) 25° pH 7.1 COND(uS) >2000 TDS _____

SAMPLE ANALYSIS: VOA + 15, PCB

FIELD PERSONNEL: Susan Waddell, George Spangenberg, Joe Cajiao, Inés Torres, Dan Flatin

OBSERVATIONS & COMMENTS: _____

Source:

Killam Associates/Consulting Engineers August 1993 Monthly Progress Report

WELL SAMPLING LOG

OWNER'S WELL NO.: CW - 9

CLIENT: Hexcel Corporation ETKA NO.: 225300

SITE LOCATION: Lodi, New Jersey DATE: 7/27/93

NJDEPE CASE NO.: 86009 NJDEPE WELL PERMIT NO.: _____

WELL TYPE: Monitoring - 4 inch PVC

GEOLOGIC FORMATION: _____

ELEVATION-Top of Casing: 26.37 ft ELEVATION-Ground Surface: 26.60 ft

TOTAL WELL DEPTH FROM TOC: 14.00 ft DEPTH TO SCREEN FROM TOC: _____ ft

PURGE INFORMATION

DEPTH TO WATER FROM TOC: 8.32 ft ORGANIC VAPOR READINGS: 0 PPM

DEPTH TO FREE PRODUCT: NA ft FREE PRODUCT THICKNESS: NA ft

PURGE METHOD: Centrifugal Pump

ONE WELL VOLUME: 2.8 Gal TOTAL PURGE VOLUME: 10.0 Gal

PURGE TIME START: 14:41 PURGE TIME FINISH: 14:50

DTW AFTER PURGING: 9.98 ft PURGE RATE: 1.1 GPM

PURGE CHEMISTRIES: TEMP(C) Ph COND(uS) TDS

1ST VOL 24° 7.6 1100 _____

2ND VOL 25° 7.7 1160 _____

3RD VOL 24° 7.7 1230 _____

SAMPLING INFORMATION:

SAMPLE NUMBER: 93-0727-CW9 SAMPLE METHOD Teflon Bailor

SAMPLE TIME START: 16:27

DTW BEFORE SAMPLING 8.16 ft DTW AFTER SAMPLING: 8.26 ft

SAMPLE CHEMISTRIES: TEMP.(C) 24° pH 7.7 COND(uS) 1240 TDS _____

SAMPLE ANALYSIS: VOA + 15, PCB

FIELD PERSONNEL: Susan Waddell, George Spangenberg, Joe Cajiao, Inés Torres, Dan Flatin

OBSERVATIONS & COMMENTS: _____

882810035

Source:

Killam Associates/Consulting Engineers August 1993 Monthly Progress Report

WELL SAMPLING LOG

OWNER'S WELL NO.: CW - 11

CLIENT: Hexcel Corporation ETKA NO.: 225300

SITE LOCATION: Lodi, New Jersey DATE: 7/27/93

NJDEPE CASE NO.: 86009 NJDEPE WELL PERMIT NO.: _____

WELL TYPE: Monitoring - 4 inch PVC

GEOLOGIC FORMATION: _____

ELEVATION-Top of Casing: 25.74 ft ELEVATION-Ground Surface: 26.60 ft

TOTAL WELL DEPTH FROM TOC: 14.00 ft DEPTH TO SCREEN FROM TOC: _____ ft

PURGE INFORMATION

DEPTH TO WATER FROM TOC: 8.48 ft ORGANIC VAPOR READINGS: 0 PPM

DEPTH TO FREE PRODUCT: NA ft FREE PRODUCT THICKNESS: NA ft

PURGE METHOD: Centrifugal Pump

ONE WELL VOLUME: 3.5 Gal TOTAL PURGE VOLUME: 12.0 Gal

PURGE TIME START: 14:25 PURGE TIME FINISH: 14:32

DTW AFTER PURGING: 8.64 ft PURGE RATE: 1.7 GPM

PURGE CHEMISTRIES: TEMP(C) Ph COND(uS) TDS

1ST VOL 24° 7.0 1590 _____

2ND VOL 24° 7.1 1790 _____

3RD VOL 24° 6.9 >2000 _____

SAMPLING INFORMATION:

SAMPLE NUMBER: 93-0727-CW11 SAMPLE METHOD Teflon Bailor

SAMPLE TIME START: 16:15

DTW BEFORE SAMPLING 7.49 ft DTW AFTER SAMPLING: 7.49 ft

SAMPLE CHEMISTRIES: TEMP.(C) 24° pH 7.4 COND(uS) 1330 TDS _____

SAMPLE ANALYSIS: VOA + 15, PCB

FIELD PERSONNEL: Susan Waddell, George Spangenberg, Joe Cajiao, Inés Torres, Dan Flatin

OBSERVATIONS & COMMENTS: _____

882810036

Note regarding CW-15 Well Sampling Log:

There appears to be an error in the measurement of depth to free product, as it is greater than the depth of the well. In a subsequent monitoring event on August 20, 1993, no DNAPL was detected at the well (see attached DNAPL Monitoring Form). The well contains ground water recovery equipment which is difficult to remove; therefore, monitoring data are limited. Available data indicate that no DNAPL has been detected in the well since August 1990.

HEXCEL PROJECT, LODI, NJ
DNAPL MONITORING FORM

Well No.	TOC Elevation (ft, NJVD)	Depth to Water (ft)	Depth to DNAPL	Total Well Depth (From TOC)	Water Elevation (ft, NJVD)	Thickness of DNAPL	Time of Day	Remarks
CW-3	29.72	6.94	ND	11.28	22.78		10:39	
CW-4	29.00	6.33	ND	10.86	22.67		10:27	
CW-5	28.67	6.05	ND	9.15	22.62		10:23	
CW-14	26.37	7.86	ND	13.74	18.51		11:45	
CW-15	26.31	7.85	ND	11.80	18.46		11:52	
CW-16	26.45	7.80	11.24	13.74	18.65	2.50	11:53	Approximately 3 gallons of DNAPL were recovered on September 17, 1993 via pumping.
CW-18	26.61	7.44	ND	13.75	19.17		12:06	

Note: The Total Well Depth (From TOC) will be determined during the first monitoring episode.

CHECKED BY: _____, DATE: _____

Page 2 of 2

Source: Killam Associates/Consulting Engineers August 1993 Monthly Progress Report

882810038

Source:

Killam Associates/Consulting Engineers August 1993 Monthly Progress Report

WELL SAMPLING LOG

OWNER'S WELL NO.: CW - 15

CLIENT: Hexcel Corporation ETKA NO.: 225300

SITE LOCATION: Lodi, New Jersey DATE: 7/27/93

NJDEPE CASE NO.: 86009 NJDEPE WELL PERMIT NO.: _____

WELL TYPE: Monitoring - 4 inch PVC

GEOLOGIC FORMATION: _____

ELEVATION-Top of Casing: 26.31 ft ELEVATION-Ground Surface: 26.90 ft

TOTAL WELL DEPTH FROM TOC: 11.80 ft DEPTH TO SCREEN FROM TOC: _____ ft

PURGE INFORMATION

DEPTH TO WATER FROM TOC: 8.49 ft ORGANIC VAPOR READINGS: 0 PPM

DEPTH TO FREE PRODUCT: 12.86 ft FREE PRODUCT THICKNESS: ??? ft

PURGE METHOD: Centrifugal Pump

ONE WELL VOLUME: 2.1 Gal TOTAL PURGE VOLUME: 6.0 Gal

PURGE TIME START: 14:09 PURGE TIME FINISH: 14:14

DTW AFTER PURGING: 10.70 ft PURGE RATE: 1.2 GPM

PURGE CHEMISTRIES: TEMP(C) Ph COND(uS) TDS

1ST VOL 21° 8.0 690 _____

2ND VOL 20° 7.7 630 _____

3RD VOL 20° 7.5 630 _____

SAMPLING INFORMATION:

SAMPLE NUMBER: 93-0727-CW15 SAMPLE METHOD Teflon Bailor

SAMPLE TIME START: 15:57

DTW BEFORE SAMPLING 8.13 ft DTW AFTER SAMPLING: 8.58 ft

SAMPLE CHEMISTRIES: TEMP.(C) 21° pH 8.4 COND(uS) 600 TDS _____

SAMPLE ANALYSIS: VOA + 15, PCB

FIELD PERSONNEL: Susan Waddell, George Spangenberg, Joe Cajiao, Inés Torres, Dan Flatin

OBSERVATIONS & COMMENTS: _____

882810039

Source:

Killam Associates/Consulting Engineers August 1993 Monthly Progress Report

WELL SAMPLING LOG

OWNER'S WELL NO.: CW - 18

CLIENT: Hexcel Corporation ETKA NO.: 225300
SITE LOCATION: Lodi, New Jersey DATE: 7/27/93
NJDEPE CASE NO.: 86009 NJDEPE WELL PERMIT NO.: _____

WELL TYPE: Monitoring - 4 inch PVC

GEOLOGIC FORMATION: _____

ELEVATION-Top of Casing: 26.61 ft ELEVATION-Ground Surface: 27.20 ft

TOTAL WELL DEPTH FROM TOC: 13.75 ft DEPTH TO SCREEN FROM TOC: _____ ft

PURGE INFORMATION

DEPTH TO WATER FROM TOC: 7.70 ft ORGANIC VAPOR READINGS: 0 PPM

DEPTH TO FREE PRODUCT: NA ft FREE PRODUCT THICKNESS: NA ft

PURGE METHOD: Centrifugal Pump

ONE WELL VOLUME: 3.9 Gal TOTAL PURGE VOLUME: 13.0 Gal

PURGE TIME START: 13:40 PURGE TIME FINISH: 13:50

DTW AFTER PURGING: 8.75 ft PURGE RATE: 1.3 GPM

PURGE CHEMISTRIES: TEMP(C) Ph COND(uS) TDS

1ST VOL 29° 7.8 1230 _____

2ND VOL 27° 7.2 1080 _____

3RD VOL 28° 7.1 1210 _____

SAMPLING INFORMATION:

SAMPLE NUMBER: 93-0727-CW18 SAMPLE METHOD Teflon Bailor

SAMPLE TIME START: 15:30

DTW BEFORE SAMPLING 7.66 ft DTW AFTER SAMPLING: 7.69 ft

SAMPLE CHEMISTRIES: TEMP.(C) 25° pH 7.6 COND(uS) 910 TDS _____

SAMPLE ANALYSIS: VOA + 15, PCB

FIELD PERSONNEL: Susan Waddell, George Spangenberg, Joe Cajiao, Inés Torres, Dan Flatin

OBSERVATIONS & COMMENTS: _____

882810040

Source:

Killam Associates/Consulting Engineers August 1993 Monthly Progress Report

WELL SAMPLING LOG

OWNER'S WELL NO.: CW - 21

CLIENT: Hexcel Corporation ETKA NO.: 225300

SITE LOCATION: Lodi, New Jersey DATE: 7/27/93

NJDEPE CASE NO.: 86009 NJDEPE WELL PERMIT NO.: _____

WELL TYPE: Monitoring - 4 inch PVC

GEOLOGIC FORMATION: _____

ELEVATION-Top of Casing: 26.77 ft ELEVATION-Ground Surface: 27.40 ft

TOTAL WELL DEPTH FROM TOC: 14.00 ft DEPTH TO SCREEN FROM TOC: _____ ft

PURGE INFORMATION

DEPTH TO WATER FROM TOC: 7.89 ft ORGANIC VAPOR READINGS: 0 PPM

DEPTH TO FREE PRODUCT: NA ft FREE PRODUCT THICKNESS: NA ft

PURGE METHOD: Centrifugal Pump

ONE WELL VOLUME: 1.0 Gal TOTAL PURGE VOLUME: 4.0 Gal

PURGE TIME START: 15:00 PURGE TIME FINISH: 15:06

DTW AFTER PURGING: 7.95 ft PURGE RATE: 0.7 GPM

PURGE CHEMISTRIES: TEMP(C) Ph COND(uS) TDS

1ST VOL 28° 7.6 1570 _____

2ND VOL 29° 7.5 1640 _____

3RD VOL 30° 7.2 1670 _____

SAMPLING INFORMATION:

SAMPLE NUMBER: 93-0727-CW21 SAMPLE METHOD Teflon Bailor

SAMPLE TIME START: 15:23

DTW BEFORE SAMPLING 7.89 ft DTW AFTER SAMPLING: 8.77 ft

SAMPLE CHEMISTRIES: TEMP.(C) 25° pH 8.4 COND(uS) 1080 TDS _____

SAMPLE ANALYSIS: VOA + 15, PCB

FIELD PERSONNEL: Susan Waddell, George Spangenberg, Joe Cajiao, Inés Torres, Dan Flatin

OBSERVATIONS & COMMENTS: _____

882810041

Appendix E

TABLE 8: SUMMARY OF PRODUCT COLLECTION

Former Hexcel Facility
Lodi, New Jersey


All Quantities Expressed in Gallons

GEO Engineering, Inc.

July 1995

File: 94039\prodcoll\prodcol2.xls

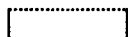
By: SJA Check: SG

DATE	MW-6 (DNAPL)	MW-8 (DNAPL)	MW-26 (DNAPL)	RW6-1 (DNAPL)	RW7-1 (DNAPL)	RW7-4 (DNAPL)	CW-12 (DNAPL)	CW-16 (DNAPL)	CW-7 (LNAPL)	TOTAL VOLUME RECOVERED
4/10/95	0.2		trace	trace		trace	trace		trace	
4/26/95	0.8								trace	
4/28/95 *	0.1									
5/1/95 *	0.1									
5/10/95	0.1								trace	
5/22/95	0.2								trace	
6/6/95	0.1				trace				trace	
6/20/95	0.1							0.1	trace	
6/28/95	0.1							trace	0.4	
TOTAL VOLUME RECOVERED, 2nd QUARTER, 1995	1.8	0.0	trace	trace	trace	trace	trace	0.1	0.4	2.3
TOTAL VOLUME RECOVERED, 10/94 - 3/95	4.6	1.0	0.1	trace	trace	trace	0.6	0.2	trace	6.5
TOTAL VOLUME RECOVERED	6.4	1.0	0.1	trace	trace	trace	0.6	0.3	0.4	8.8

Quantities less than 1 Cup are defined as "trace" and are not included in totals. All quantities are rounded to the nearest 0.1 gallons.

The quantities given for "TOTAL VOLUME RECOVERED, 10/94 - 3/95", have been modified to comply with these criteria.

Notes: * Product recovery on 4/28/95 and 5/1/95 was performed above and beyond the frequency specified in the proposed recovery plan and was only performed at MW-6.

 Blank cell indicates well not included in recovery round because monitoring did not indicate the presence of recoverable product.

Appendix F

Appendix F

The following table summarizes all disposal documentation for April, May and June 1995. Copies of the manifests are included.

Date Accepted at Disposal Facility (unless indicated otherwise)	State Manifest Document Number	Quantity	Comments
4/13/95	NJA 2074684	3,875 gallons	Treated ground water
5/11/95	MN7304306	18,390 lbs. (estimated)	Spend carbon, PPE, filters and pads, excavated soil
5/11/95	MN7304307	4,716 gallons	Sludge generated by treatment system

Note that manifests are arranged in order of increasing State Manifest Document Numbers.



State of New Jersey
Department of Environmental Protection and Energy
Hazardous Waste Regulation Program
Manifest Section
CN 421, Trenton, NJ 08625-0421

Form Approved OMB No. 2050-0039 Expires 9-30-94

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NJD98658413400001		Manifest Document No. 4002/3 (P)		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.						
3. Generator's Name and Mailing Address 205 MAIN ST LODI, NJ 07644 HUXCEL CORP				A. State Manifest Document Number NJA 2074684		B. State Generator's ID (Gen's Site Address) Same								
4. Generator's Phone 201-472-6800				5. Transporter 1 Company Name FRANZBLD CART CORP INC		6. US EPA ID Number NJD034126164		C. State Trans ID NJDEP ST-2265						
5. Transporter 1 Company Name FRANZBLD CART CORP INC				6. US EPA ID Number NJD034126164		D. Transporter's Phone 908-462-1001		E. State Trans ID NJDEP ST-2265						
9. Designated Facility Name and Site Address ELI LILLY 2144 HWY RT 130 CHAMBERS WORKS PLANT DEERFIELD, NJ 08023				10. US EPA ID Number NJD002385730		F. Transporter's Phone 609-540-2773		G. State Facility's ID 609-540-2773						
11. US DOT Description (Including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group) HAZARDOUS WASTE, LIQUID, N.O.S. 39° NA 3082, PG III (F001, F003)				12. Containers No. Type 001 TT X38754 F002		13. Total Quantity Unit 001		14. Waste No. F002						
Additional Descriptions for Materials Listed Above ET F001, F003 7970% VOLATILE ORGAN < 1% S. SOLIDS < 2% PCB < 3 PPB				K. Handling Codes for Wastes Listed Above T01										
15. Special Handling Instructions and Additional Information CONTRACT # OW4002 RRL-002 ERG #31 24 HOUR PHONE: 908-462-1001														
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. AS AGENT ON BEHALF OF HUXCEL CORP														
Printed/Typed Name Stephen J. Abrusia					Signature <i>Stephen J. Abrusia</i>					Month Day Year 04/13/95				
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name ALFONSO TROCCATO					Signature <i>Alfonso Troccato</i>					Month Day Year 04/13/95				
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name					Signature					Month Day Year				
19. Discrepancy Indication Space ITEM 2 SHOULD READ PAGE 1 OF 1.														
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name JOHNA HOPE					Signature <i>John A Hope</i>					Month Day Year 04/13/95				



HAZARDOUS WASTE DIV.
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: HWIMS

Please TYPE (Form designed for use on elite (12-pitch) typewriter) or print LEGIBLY. Instructions on cover page.

OMB No. 2050-0039
EXPIRES 9/30/96

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NJ D 9 8 6 5 8 4 1 3 4	Manifest Document No. F694P	2. Page 1 of 1	Information in shaded area not required by Federal law. Minnesota rules require Items H. and I.	
3. Generator's Name and Mailing Address (Also location of waste generation if different from mailing address.) HEXCEL CORPORATION 205 MAIN STREET; LODI, NJ 07644				A. State Manifest Document Number MN 7304306		
4. Generator's Phone (908) 756-4200 County: <i>Long</i>				B. State Generator's ID		
5. Transporter 1 Company Name (510) 847-9500 NAPPI TRUCKING CORP				C. State Transporter's ID		
6. US EPA ID Number NJ D 0 0 0 8 1 3 4 7 7				D. Transporter's ID 708 222 7566-3000		
7. Transporter 2 Company Name				E. State Transporter's ID		
8. US EPA ID Number				F. Transporter's Phone		
9. Designated Facility Name and Site Address APTUS INC LAKEVILLE 21750 CEDAR AVENUE LAKEVILLE, MN 55044				10. U.S EPA ID Number MN D 9 8 1 1 9 0 2 4 2		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers		
HM				No	Type	13. Total Quantity
a. RQ-HAZARDOUS WASTE SOLIDS, NOS (ACTIVATED CARBON/DICHLOROMETHANE) (F002) 9 NA3077 III				K32	DM	14415 P
b. RQ-HAZARDOUS WASTE SOLID, NOS (LEAD/1,2-DICHLOROBENZENE) (D008) 9 NA3077 III				KX3	DM	K1890 P
c. RQ-HAZARDOUS WASTE SOLIDS, N.O.S. (TETRACHLOROETHENE/CHLOROBENZENE) (F003) 9 NA3077 III				X13	DM	X2085 P
d.						
J. Additional Descriptions for Materials Listed Above a) AP112430 F003 F005 b) AP112433 F005 c) AP112431				K. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information 729726 Emergency Response Phone 800-328-4061 a) 31 b) 31 c) 31						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and all applicable state laws and regulations. If I am a large quantity generator I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment, or, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. <i>As agent on behalf of Hexcel Corporation</i> Printed/Typed Name: Kevin M. Greener Signature: <i>Kevin M. Greener</i> Date: 05/09/95						
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name: Fred G. Hammer Signature: <i>Fred G. Hammer</i> Date: 05/09/95						
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name: Signature: Date:						
19. Discrepancy Indication Space.						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name: Daniel Fish Signature: <i>Daniel Fish</i> Date: 05/11/95						



HAZARDOUS WASTE UNIT
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55135
ATTN: HWIMS

Please TYPE (Form designed for use on elite (12-pitch) typewriter) or print LEGIBLY. Instructions on cover page.

OMB No. 2050-0039
EXPIRES 9/30/96

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N J D 9 8 6 5 8 4 1 3 4		Manifest Document No. F643P		2. Page 1 of 1		Information in shaded area not required by Federal law. Minnesota rules require items H. and I.	
3. Generator's Name and Mailing Address (Also location of waste generation if different from mailing address.) HEXCEL CORPORATION 205 MAIN STREET; LODI, NJ 07644						A. State Manifest Document Number MN 7304307			
4. Generator's Phone (800) 756-1200 County: Livingston						B. State Generator's ID N-DEPE			
5. Transporter 1 Company Name (510) 847-9500 NAPPI TRUCKING CORP						6. US EPA ID Number N J D 0 0 0 8 1 3 4 7 7		C. State Transporter's ID 10342	
7. Transporter 2 Company Name						8. US EPA ID Number		D. Transporter's Phone 201/566-3000	
9. Designated Facility Name and Site Address APTUS INC LAKEVILLE 21750 CEDAR AVENUE LAKEVILLE, MN 55044						10. U.S. EPA ID Number M N D 9 8 1 1 9 0 2 4 2		E. State Transporter's ID	
								F. Transporter's Phone	
								G. State Facility's ID	
								H. Facility's Phone 6124693475	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity	
HM						No Type		Unit Wt/Vol	
a. RD-HAZARDOUS WASTE LIQUIDS, NOS (DICHLOROMETHANE / F002) RD002 living						NA3082 III		471.15 G	
b.									
c.									
d.									
J. Additional Descriptions for Materials Listed Above a) AP112432 D040 F002 F003 F005						K. Handling Codes for Wastes Listed Above D021 D022 D027 D028 D039			
15. Special Handling Instructions and Additional Information 729340 Emergency Response Phone 800-328-4061 a) 31 DECAH 65367									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and all applicable state laws and regulations. If I am a large quantity generator I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment, or, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. As agent on behalf of Hexcel Corporation,									
Printed/Typed Name Kevin H. Greener						Signature Kevin H. Greener		Date 05/09/95	
17. Transporter 1 Acknowledgement of Receipt of Materials						Printed/Typed Name JOHN MERCOGLIANO		Signature John MercoGLIANO	
								Date 05/09/95	
18. Transporter 2 Acknowledgement of Receipt of Materials						Printed/Typed Name		Signature	
								Date	
19. Discrepancy Indication Space									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						Date			
Printed/Typed Name Daniel Fish						Signature Daniel Fish		Date 05/11/95	

Appendix G

June 30, 1995

Reginald Perry
US Army Corps of Engineers
Passaic River Division
80 River Street
Hoboken, NJ 07030

**SUBJ: Request for Data and Access
Monitoring Wells Installed by the US Army Corps of Engineers
Lower Saddle River Flood Control Project
Lodi, New Jersey**

Dear Mr. Perry:

This letter is a request for well construction data, chemical analysis data, and permission to sample monitoring wells installed by the US Army Corps of Engineers (Army Corps) in Lodi, New Jersey. The requested information will help us evaluate the feasibility of using the wells for off-site investigation. We spoke with Mr. Jim Hill of the Real Estate Division and Mr. Richard Jackson of the Passaic River Division regarding this matter, and they suggested that we make a request in writing to the Army Corps and provide background information.

GEO Engineering is the environmental consultant for Hexcel Corporation (Hexcel), former owner of Fine Organics property in Lodi, New Jersey. This facility is under ISRA investigation by the New Jersey Department of Environmental Protection (NJDEP). Hexcel has been asked to provide information concerning ground water samples that may have been obtained from properties located on the opposite side of the Saddle River from the former Hexcel site.

GEO Engineering located a monitoring well on the property across the Saddle River from the Hexcel site. This property (Block 69, Lot 1-14) is owned by C&J Rental and Maintenance and operated as Bridgeview II Auto Detailing. GEO Engineering initially approached Mr. Charles Pinto, the owner of the property regarding the monitoring well. He told us that the well was installed by the Army Corps and indicated that there may be more than one well on the property.

We request that the Army Corps provide well construction details and any past testing data for the wells. Well construction details will help us determine if any of the wells are constructed to meet NJDEP requirements for off-site investigation. We request the opportunity to sample the wells only if the well construction meets NJDEP technical

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Reginald Perry

June 30, 1995

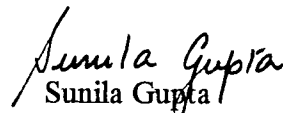
Page 2 of 2

requirements and in the event that chemical data from the wells are either not available or are insufficient to meet NJDEP technical requirements. In our conversation with the property owner, he had indicated that he would not have any problems with GEO Engineering sampling the wells, if needed.

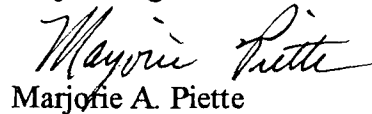
We look forward to your review of our request. Please call us if you have any questions regarding the above or need any further information.

Sincerely,

GEO ENGINEERING, INC.


Sunila Gupta

Project Engineer


Marjorie A. Piette

Project Manager

SG/MAP/avm

cc: A. William Nosil
Lisa Bromberg, Esq.

Appendix H

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TABLE 9. ESTIMATED SCHEDULE OF REMAINING REMEDIAL ACTIVITIES
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July, 1995
file: 94039\sched3.xls

1995

TASK DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12
GROUND WATER REMEDIATION												
DNAPL/LNAPL recovery (temporary)												
Recover water from basement Bldg. 1												
Obtain permits for sewer construction												
--Stream-encroachment permit												
--Local permits												
Construct new sewer line												
Conduct testing												
--Conduct hydraulic testing												
--Pilot test of recovery system												
--Test ground water off-site												
--Obtain off-site access or data												
Modify design of ground water recov sys												
Prep. design proposal for recov. sys.												
NJDEP review of design proposal												
Install permanent recovery system												
Operate and maintain recovery system												
Evaluate need for DNAPL barrier												
Bedrock ground water invest. (MW-1)												
CLEANING OF SEWER LINE												
Cleanout/abandonment of sewer line												
Collect samples (and lab. analysis)												
Disposal of sludge/debris												
SOIL REMEDIATION *												
Soil investigation												
Prepare soil investigation rpt./work plan												
NJDEP review of work plan												
Conduct pilot test (incl. lab. analysis)												
Design air sparging/vapor ext. system												
Obtain permits												
Install soil remediation system												
Operate and maintain system												
SEDIMENT SAMPLING												
Collect samples (and lab. analysis) *												
REPORTING												
Prepare quarterly progress reports												
Prepare report of sediment sampling *												
Prepare final report												
NJDEP review and site inspection												
Case closure												

* Due to Napp explosion, soil investigation and sediment sampling are being held in abeyance pending receipt of results from Napp.

TABLE 9. ESTIMATED SCHEDULE OF REMAINING REMEDIAL ACTIVITIES
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July, 1995
file: 94039\sched3.xls

1996

TASK DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12
GROUND WATER REMEDIATION												
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Recover water from basement Bldg. 1												
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Case closure												

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TABLE 9. ESTIMATED SCHEDULE OF REMAINING REMEDIAL ACTIVITIES
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July, 1995
file: 94039\sched3.xls

1997

TASK DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12
GROUND WATER REMEDIATION												
DNAPL/LNAPL recovery (temporary)												
Recover water from basement Bldg. 1												
Obtain permits for sewer construction												
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TABLE 9. ESTIMATED SCHEDULE OF REMAINING REMEDIAL ACTIVITIES
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July, 1995
file: 94039\sched3.xls

1998

TASK DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12
GROUND WATER REMEDIATION												
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Recover water from basement Bldg. 1												
Obtain permits for sewer construction												
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TABLE 9. ESTIMATED SCHEDULE OF REMAINING REMEDIAL ACTIVITIES
Former Hexcel Facility
Lodi, New Jersey

GEO Engineering, Inc.
July, 1995
file: 94039\sched3.xls

1999

TASK DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12
GROUND WATER REMEDIATION												
DNAPL/LNAPL recovery (temporary)												
Recover water from basement Bldg. 1												
Obtain permits for sewer construction												
--Stream-encroachment permit												
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